

Remarks

The Examiner rejects claims 1 through 8 under 35 USC §102 (e) as being anticipated by Masuda (US Patent Number 6,678,474). Applicants respectfully disagree and traverse the examiner's rejection for the following reasons:

The present invention, as defined in claim 1, requires the following features:

1. A network node for an optical communications shared protection scheme network, the network node being arranged to provide optical signals to at least two transmission paths,
2. the node comprising a link aggregation router having at least two ports,
3. a first port connected to a working transmission path, and a second port connected to a shared protection path, such that in failure-free operation both the working transmission path and the shared protection path carry link aggregated traffic simultaneously without duplication of that traffic on the two routes

The Examiner will be aware that to establish a rejection under 35 USC §102 (e), each and every claim feature must be disclosed explicitly or implicitly in the single prior art reference. However, Masuda fails to disclose any of 1) a shared protection scheme, 2) a working path or a shared protection path, and 3) a link aggregation router.

The Examiner cites Figure 3 as disclosing a shared protection scheme network. However, there is no mention of any protection scheme (whether shared or otherwise) in the whole of Masuda. Figures 3(a) and 3(b) show "a transfer operation model" (col. 4 line 3) in which there are three data transfer paths. A first path from router #1 to router #2, a second path from router #1 to router #3, and a third path from router #1 to router #4 via router #3. These

are simply different paths along which data is routed from a common source (router #1) to different destinations (router #2, router #3, and router #4). The paths are not part of a protection scheme.

Similarly, none of the three paths disclosed in Masuda are equivalent to a working path, nor a shared protection path, as argued by the Examiner. Masuda simply does not disclose a protection scheme, so it is incorrect to describe the paths either as working or protection paths (let alone shared protection paths). The paths are simply different paths along which data is routed from a common source to different destinations.

Furthermore, the Examiner argues that node 12 of Masuda is a link aggregation router. This is incorrect. Link aggregation (as described in the present application at page 4 line 26 to page 5 line 16) is a process of aggregating links between two nodes to create increased bandwidth and resilience between the nodes. The Examiner cites edge routers 12 of Masuda as disclosing a link aggregation router. However, edge routers 12 of Masuda are flow aggregation routers. They are capable of "aggregating IP traffic flows" (col. 3 line 15) using an "AFL: aggregated flow label" (col. 3, lines 40-43). The flow aggregation process is described in detail at col. 6 line 57 to col. 7 line 23 with reference to Figure 3.

One skilled in the art would realize from the teachings of Masuda and from general knowledge that flow aggregation means that different traffic flows (ie flows of IP data packets which have different source/destination address pairs) are nevertheless aggregated (ie grouped together) for the purposes of routing using a common identifier (ie the AFL: aggregated flow label). The Examiner will therefore appreciate that flow aggregation and link aggregation are quite distinct. Link aggregation involves splitting up traffic between nodes over multiple paths, whereas flow aggregation involves routing different traffic flows together over the same path.

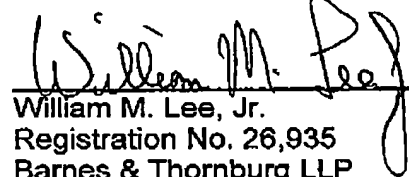
In summary, Masuda fails to disclose each and every feature of independent claim 1, and claim 1 is therefore allowable.

Similarly, Masuda fails to disclose each and every feature of independent claims 3 and 4 which contain like features, and these claims are therefore allowable, as are the dependent claims.

Accordingly, Applicants firmly, but respectfully, believe that the present application is allowable in its present form and request favorable reconsideration.

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Respectfully submitted,



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